IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (Currently Amended): A method for routing optical packets using each of multiple wavelength labels, ~~said method~~ comprising: ~~converting optical packet address signals to a plurality of optical pulses having different time deviated wavelengths by~~

executing on each packet a first operation to impart a wavelength dependent delay time ~~with respect~~ to a plurality of optical pulses having different wavelengths at a same time axis position, said first operation resulting in conversion of optical packet address signals to a plurality of optical pulses having different wavelengths and having deviated time axis positions; ~~and, when said~~

transmitting the plurality of optical pulses ~~are transmitted~~ along a predetermined optical path ~~having~~ and, when the optical path has dispersion, compensating for said dispersion;

[[by]] executing a second operation on the optical pulses corresponding to a reverse process of said first operation, said ~~to impart a wavelength dependent delay time, the~~ second operation resulting in generation of a plurality of optical pulses having different wavelengths at a same time axis position[[,]]; and

using signals of the plurality of optical pulses thus generated to determine a transmission route.

Claim 2 (Original): The method according to claim 1, in which a predetermined waveband used for one-bit address signals and a one-bit data signal waveband have identical bandwidths.

Claim 3 (Original): The method according to claim 1, in which a bandwidth allocated to data signals included in the optical packets is wider than a bandwidth allocated to the address signals.

Claim 4 (Currently Amended): The method according to claim 1, in which data signals and the optical packet address signals are transmitted with a predetermined time differential.

Claim 5 (Original): The method according to claim 1, in which the optical packet address signals include address information that is identified by wavelength information delimited by a predetermined waveband width and predetermined time differential information.

Claim 6 (Original): The method according to claim 1, in which the optical packet address signals include first address information that is identified by wavelength information delimited by a first waveband width, and second address information that is identified by wavelength information delimited by a second waveband width and predetermined time differential information.

Claim 7 (Currently Amended): The method according to claim 6, in which, based on the first address information, routing is performed by a first router ~~that can~~ configured to

switch optical paths according to wavelength differences and, based on the second address information, routing is performed by a second router ~~that can~~ configured to switch optical paths according to time differences.

Claim 8 (Currently Amended): An optical packet router using each of multiple wavelength labels, comprising:

means for separating an optical packet into data signals and address signals, said address signals including optical pulses having different wavelengths and being identified by wavelength information delimited by a predetermined waveband width and predetermined time differential information included in optical packets;

means for demodulating address information delimited ~~identified~~ by the wavelength information ~~delimited by a predetermined waveband width and predetermined time differential information~~ from the address signals to obtain demodulated address information;

means for switching an optical switch in accordance with the demodulated address information; and

selection means that uses the optical switch ~~to select~~ for selecting an optical path for the data signals.

Claim 9 (Original): The router according to claim 8, in which the demodulation means uses a multi-section fiber Bragg grating.

Claim 10 (Currently Amended): An optical packet router using each of multiple wavelength labels, comprising:

a pulse light source that includes multi-wavelength laser light;

means for dividing pulse signals from the pulse light source into a plurality of light paths;

[[a]] means for obtaining [[a]] first pulse ~~signal~~ signals using a ~~means that interacts with~~ a multi-section fiber Bragg grating following modulation of [[one]] some divided pulse signals:

[[a]] means for obtaining [[a]] second pulse signals comprising means for ~~narrowing~~ reducing waveband width of other divided pulse signals and means for modulating the ~~reduced-bandwidth~~ pulse signals with reduced bandwidths;

means for adjusting a time differential between the first pulse ~~signal~~ signals and [[the]] second pulse ~~signal~~ signals; and

means for guiding the first and second pulse signals thus adjusted to a same light path.

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Claim 11 (Currently Amended): An optical packet communication network that uses each of multiple wavelength labels, said network comprising:

a plurality of routers ~~that can~~ configured to switch optical paths in accordance with differences in combinations of multiple optical pulse wavelengths and time differentials included in address signals, with at least two of said routers being connected together.

Claim 12 (Currently Amended): An optical packet communication network that uses each of multiple wavelength labels, said network comprising:

a first router ~~that can~~ configured to switch optical paths in accordance with differences in wavelengths of multiple optical pulses included in address signals, and

a second router ~~that can~~ configured to switch optical paths in accordance with differences in combinations of multiple optical pulse wavelengths and time differentials included in address signals, with the second router being connected to the first router.